What is claimed is:

1. A method of monitoring a liquid for the presence of (disease-modified or associated proteins,) comprising the steps of:

   (a) contacting a sample of said liquid with a solid, non-buoyant particulate material having free ionic valencies so as to concentrate said disease-modified or associated proteins in said sample; and

   (b) monitoring the (resulting) disease-modified or associated proteins concentrated on said particulate material. → another example besides $CaPO_4$ needed to overcome scope enablement

OK 2. A method according to claim 1, wherein said liquid is a sample of body fluid taken from an animal.

OK 3. A method according to claim 2, wherein said sample of body fluid is urine.

OK 4. A method according to claim 1, wherein said particulate material comprises calcium phosphate in granular form.

OK 5. A method according to claim 1, wherein said concentrated proteins are monitored using electron microscopy.

OK 6. A method according to claim 1, wherein said concentrated proteins are monitored using an enzyme linked immunosorbent assay (ELISA) Western Blotting or dot blot.

RE 6/30/2000

7. A method according to claim 6, in which a first antibody is added to said concentrated proteins so as to permit said first antibody to complex with said concentrated proteins.

Not [illegible] ?

or OK

8. A method according to claim 7, wherein a second antibody which is conjugated to a marker enzyme is added to said complexed proteins so as to permit said second antibody to complex to said first antibody.

9. A method according to claim 1, wherein said concentrated proteins are amplified using a polymerase chain reaction and then monitored by a restriction fragment length method.

10. A method according to claim 1, wherein said concentrated proteins are used in a hybridization reaction and then monitored using Western blotting.

11. A kit for carrying out an ELISA reaction, the kit comprising:

(a) a solid, non-buoyant particulate material having free ionic valencies in a form capable of complexing with disease-modified or associated proteins present in a sample of liquid;

(b) a blocking buffer capable of complexing with said particulate material not complexed with said proteins;

(c) a first antibody material capable of complexing with said complexed proteins; and

(d) a further antibody which is capable of complexing with said first antibody.

12. A kit according to claim 11, wherein said liquid is a sample of body fluid taken from an animal.

13. A kit according to claim 12, wherein said sample of body fluid is urine.

14. A kit according to claim 11, wherein said particulate material comprises calcium phosphate in granular form.

15. A method for concentrating disease-modified or associated proteins from a sample of liquid which comprises the following steps:

(a) collecting and centrifuging said sample of liquid;

(b) collecting the supernatant produced following centrifugation of said sample;

(c) adding a buffer and a solid, non-buoyant particulate material having free ionic valencies to said supernatant;

(d) centrifuging the resulting mixture of said buffer, said particulate material and said supernatant;

(e) collecting said particulate material following centrifugation;

(f) adding a buffer to said particulate material;

(g) centrifuging said mixture of said buffer and said particulate material;

(h) collecting said particulate material;

(i) adding a buffer to said particulate material;

(j) centrifuging a mixture of said buffer and said particulate material; and

(k) collecting supernatant containing the disease-modified or associated proteins.

16. A method according to claim 15, wherein said liquid is a sample of body fluid taken from an animal.

17. A method according to claim 16, wherein said sample of body fluid is urine.

18. A method according to claim 15, wherein said particulate material comprises calcium phosphate in granular form.

19. A method of monitoring a liquid for the presence of biological material selected from the group consisting of disease-modified or associated proteins, a fragment thereof, a virus or a fragment thereof, comprising the steps of:

(a) providing a sample of said liquid;

(b) passing said sample through a solid filter medium having free ionic valencies so as to complex at least one of said biological material to said medium; and

(c) monitoring at least a part of said complexed biological material, wherein the presence of at least a part of said biological material is indicative of an association of said liquid with the relevant disease.

20. A method according to claim 19, wherein said liquid is a sample of body fluid taken from an animal.

21. A method according to claim 20, wherein said sample of body fluid is urine.

22. A method according to claim 19, wherein said filter comprises a gauze fiber material.

23. A method according to claim 19, wherein said filter comprises a cotton fiber material.

24. A method according to claim 19, wherein said filter medium comprises a sheet-like member with a pore size ranging from 1 to 100 microns.

25. A method according to claim 19, wherein said complexed biological material is monitored using electron microscopy.

26. A method according to claim 19, wherein said complexed biological material is monitored using an enzyme linked immunosorbent assay (ELISA), Western blotting or dot blot.

27. A method according to claim 26, in which a first antibody is added to said complexed biological material so as to permit said first antibody to complex with said complexed biological material.

28. A method according to claim 27, wherein a second antibody which is conjugated to a marker enzyme is added to said complexed biological material so as to permit said second antibody to complex to said first antibody.

29. A method according to claim 19, wherein said complexed biological material is amplified using a polymerase chain reaction and then monitored by a restriction fragment length method.

30. A method according to claim 19, wherein said complexed biological material is used in a hybridization reaction and then monitored using Western blotting.

31. A method of monitoring a liquid for the presence of biological material selected from the group consisting of disease-modified or associated proteins, a fragment thereof, a virus or a fragment thereof, comprising the steps of:

(a) providing a sample of said liquid;

(b) contacting said sample with a solid, non-buoyant particulate material having free ionic valencies;

(c) centrifuging at least once, said mixture of said particulate material and said sample;

(d) collecting the supernatant and passing said supernatant through a solid filter medium having free ionic valencies so as to complex at least one of said biological material to said medium; and

(e) monitoring at least a part of said complexed biological material, wherein the presence of at least a part of said biological material is indicative of an association of said liquid with the relevant disease.

32. A method according to claim 31, wherein said liquid is a sample of body fluid taken from an animal.

33. A method according to claim 32, wherein said sample of body fluid is urine.

34. A method according to claim 31, wherein said particulate material comprises calcium phosphate in granular form.

35. A method according to claim 31, wherein said filter comprises a gauze fiber material.

36. A method according to claim 31, wherein said filter comprises a cotton fiber material.

37. A method according to claim 31, wherein said filter medium comprises a sheet-like member with a pore size ranging from 1 to 100 microns.

38. A method according to claim 31, wherein said complexed biological material is monitored using electron microscopy.

39. A method according to claim 31, wherein said complexed biological material is monitored using an enzyme linked immunosorbent assay (ELISA).

40. A method according to claim 39, in which a first antibody is added to said complexed biological material so as to permit said first antibody to complex with said complexed biological material.

41. A method according to claim 40, wherein a second antibody which is conjugated to a marker enzyme is added to said complexed biological material so as to permit said second antibody to complex to said first antibody.

42. A method according to claim 31, wherein said complexed biological material is amplified using a polymerase chain reaction and then monitored by a restriction fragment length method.

43. A method according to claim 31, wherein said complexed biological material is used in a hybridization reaction and then monitored using Western blotting.

add a7

B1